Science GE DOK Alignment Chart **INQUIRY** **Grades PK-K** **GE 1-2**

DOK & NECAP Release Item Codes	GE Statement with Ceiling DOK	Examples/Practice Items
Enduring Knowledge (Scientific Questioning): Students raise scientifically oriented questions that can be answered through observations, experimentation and/or research. At early stages, students learn how to develop investigable questions that guide their work. At later stages, students connect their questions to scientific ideas, concepts, and quantitative relationships that inform investigations.		
All Inquiry GEs are assessed at the state level (NECAP Science). DOK 2 DOK 2	**SPK-K:1** **(DOK 2)** **Students demonstrate their understanding of SCIENTIFIC QUESTIONING by…** · Developing a question by completing the prompt, "I wonder.. .?" **AND** · Demonstrating a "questioning mind" through extended, intentional (purposeful) interactions with materials or people; Experimenting with possibilities.	
Enduring Knowledge: (Predicting and Hypothesizing): Scientists' explanations about what happens in the world come partly from what they observe and partly from what they think. Preliminary explanations are constructed with conceptual knowledge and propose a new level of understanding. At early stages, students think about what may happen during an investigation and justify their thinking. At later stages, students identify cause and effect relationships within an hypothesis and base predictions on factual evidence more than opinion.		
All Inquiry GEs are assessed at the state level (NECAP Science). DOK 2	**S 1-2: 2** **(DOK 2)** **Students demonstrate their understanding of PREDICTING AND HYPOTHESIZING by…** · Stating ideas about what may happen or be observed in the future (e.g., Student thinks ahead).	

Science GE DOK Alignment Chart **INQUIRY** **Grades PK-K** **GE 3**

DOK & NECAP Release Item Codes	GE Statement with Ceiling DOK	Examples/Practice Items
Enduring Knowledge (Designing Experiments): Students design investigations that control variables, generate adequate data/observations to provide reasonable explanations, and can be reproduced by other scientists. At early stages, experimental design reflects what the experimenter will do to answer a question and ensure that a test is fair. At later stages, students design investigations that will produce the appropriate kinds of evidence to support or refute an hypothesis. Multiple trials or the collection of multiple data points are incorporated into the design and variables are controlled to ensure that the investigation is valid and reproducible.		
All Inquiry GEs are assessed at the state level (NECAP Science). . DOK 2 DOK 1	**SPK-K:3** **(DOK 2)** **Students demonstrate their understanding of EXPERIMENTAL DESIGN by…** · Explaining the process of an investigation before and during the process (e.g., "on the job" planning, investigating, and explaining can happen simultaneously). **AND** · Using procedures that are safe and humane.	

Science GE DOK Alignment Chart **INQUIRY** **Grades PK-K** **GE 4**

DOK & NECAP Release Item Codes	GE Statement with Ceiling DOK	Examples/Practice Items
Enduring Knowledge (Conducting Experiments): Students follow an experimental design and use scientific tools (including measurement tools) appropriately and accurately. At early stages, students are encouraged to pay close attention to their experimental plan and record data throughout an investigation. At later stages, students engage in extended investigations and use more sophisticated science tools including compute rs.		
All Inquiry GEs are assessed at the state level (NECAP Science). DOK 2 DOK 1 DOK 2 DOK 2	**SPK-K:4** **(DOK 2)** **Students demonstrate their ability to CONDUCT EXPERIMENTS by…** · Using more than one of the senses to make observations. **AND** · Describing obvious features of an object or event. **AND** · Representing data in a variety of ways including words, numbers, symbols, and pictures. **AND** · Drawing scientifically: a. Recording shapes, prominent features with supporting details (e.g., eyelashes on eyes), and color. b. Spatially organizing and differentiating significant parts observed. c. Adding essential information to a diagram provided by the teacher. d. Using simple equipment and nonstandard measurement tools to gather data and extend the senses (e.g., balances, scales, counters, magnifiers). e. Following teacher guidance to complete steps while investigating a question.	

Science GE DOK Alignment Chart **INQUIRY** **Grades PK-K** **GE 5-8**

DOK & NECAP Release Item Codes	GE Statement with Ceiling DOK	Examples/Practice Items
Enduring Knowledge (Representing Data and Analysis): Students represent data using text, charts, tables, graphs.		
All Inquiry GEs are assessed at the state level (NECAP Science). DOK 2	**SPK-K:5** **(DOK 2)** **Students demonstrate their ability to REPRESENT DATA by…** · Including a piece of data (measurement or observation) on a group representation (e.g., pictograph, bar graph, or chart).	
All Inquiry GEs are assessed at the state level (NECAP Science). DOK 2	**SPK-K:6** **(DOK 2)** **Students demonstrate their ability to ANALYZE DATA by…** · Sorting objects based upon current observations and justifying groupings.	
All Inquiry GEs are assessed at the state level (NECAP Science). DOK 2	**SPK-K:7** **(DOK 2)** **Students demonstrate their ability to EXPLAIN DATA by…** · Communicating observations with the support of material props, photographs, drawings, or diagrams.	
Enduring Knowledge (Applying Results): Students synthesize the results of an investigation by generating new questions related to the results of the investigation, stating a general rule regarding the understandings learned from the investigation, or applying the understandings learned to similar situations. At early stages, students make connections between classroom investigations and similar situations or experiences. At later stages, students recognize that different explanations can sometimes arise from the same evidence. Students demonstrate an ability to resist overgeneralization based on insufficient evidence and suggest the types of evidence that need to be gathered in order to better understand the focus of the investigation		
All Inquiry GEs are assessed at the state level (NECAP Science). DOK 2	**SPK-K:8** **(DOK 2)** **Students demonstrate their ability to APPLY RESULTS by…** · Identifying similarities between past experiences and current investigations.	